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N. E. FARMER.

WANDERINGS IN THE WEST IN 1839.

No. VI.

(*Continued from page* 428.)

The shore of lake Erie appears to be very level, not very much elevated, and covered with very heavy timber, and except at the towns there are very few clearings: the scenery is very uniform—a steep bluff facing the lake crowned with the unbroken forest: there are numerous islands in the lake, generally rocky and uninhabited.

Thirteen miles from Ashtabula we came to Conneaut, upon a small creek near the Pennsylvania line. Here, as at the other places, is a pier with a few warehouses, and the principal village is two or three miles up the creek upon the stage road. Our stop at all these little towns was too brief to allow us to go on shore.

Twentyfive miles from Conneaut and 86 from Cleaveland, brought us to Erie in Pennsylvania, which is situated upon a high, airy spot: it is well built, chiefly with brick, and has some very fine edifices; the harbor is the best upon the lake, being formed by a low peninsula, nearly in the form of the letter T. It was here that Perry's fleet wintered after his great victory, and the wrecks of his prizes were sunk. Our stop at Erie was long enough to allow us to go over the town, the thriving appearance of which pleased me much.

From Erie the country assumes a bolder appearance; high and sometimes rocky hills are seen, which distinguish the territory of Pennsylvania from that of Ohio.

When I awoke the next morning we were safe in port at Buffalo, having been a little less than five whole days coming from Chicago, a distance of 1050 miles.

Buffalo is a large well built city, has many splendid public buildings, and contains probably 25,000 inhabitants, and it seems hardly possible that such a city could be produced in the short period of twentysix years, yet that is the fact: the little village which previously stood there, was wholly burnt by the British in 1813. Its situation for business and trade is peculiarly favorable, being at the extreme east end of the lake, and the termination of the great New York canal: it thus becomes a thoroughfare from the eastern States to Canada and the west. The number of steamboats and sailing vessels going and coming is very great. The rapid growth of the city is owing to these circumstances.

From Buffalo I took the cars to Niagara falls, distant 23 miles. I spent about four hours only at the falls, but I made the most of that time. At the first view of the cataract I was disappointed; it did not appear so grand as I had expected, but it was because that I was not able to realise the magnitude of the scene. After looking at it from different points I was better able to appreciate the vastness of the object, and I became more and more impressed with the grandeur and sublimity of the scene up to the last moment of my stay. I was the most impressed with the power of the falls at the bottom of the American falls; but I think the best view is obtained from Table rock. I have read perhaps a dozen minute descriptions of Niagara falls, but I had a very faint notion of the scene until I visited the spot. Words are insufficient to convey a just idea of the falls.

From Niagara there is a railroad to Lockport connecting with the canal at the latter place, and also a branch to Lewiston, whence a steamer runs daily down lake Ontario, touching at Oswego: I took the latter route. Lewiston is but a small village seven miles from the falls: directly opposite is Queenstown, which is only remarkable for the desperate battle which was fought there and the monument to Gen. Brock, which crowns the hill above the town.

At the entrance into lake Ontario on the Canadian side, is the town of Chippewa, celebrated also for a bloody battle. It is very beautifully situated, but does not appear to be a place of great business. Fort George occupies the point below. On the opposite side Fort Niagara frowns defiance. The latter spot is notorious for the Morgan tragedy, which has caused so much excitement in the political world. The passage down the lake was very pleasant: there are many clearings along the shore showing a great many fine farms and several very pretty villages.

We breakfasted the next morning at Oswego, and took the stage for Syracuse, our company preferring that conveyance to the canal.

The land in this section of the country is hilly and quite stony, but the soil is productive in grain and grass, and fruit trees thrive very well.

Our route was near the Oswego canal, passing through the villages of Fulton, Phenix and Liverpool. At the latter place I made a hasty examination of the salt works. The water is obtained from a spring discovered by boring in Onondaga lake, 30 rods from the shore. The water is said to be eight per cent. stronger than that of Salina. The salt houses are all similar: they have forty kettles set in a double row, and I was told that from 200 to 250 bushels per day were made in each house.

The salt works at Syracuse and Salina are supplied from a natural well in Salina. The salt houses are very numerous, and besides these there are two fields of 60 acres each, where salt is made by solar evaporation. I could not learn exactly the quantity of salt made at these three places; but it is much greater than I had supposed, and it is of very good quality;—that which is made by solar evaporation, however, is much the best.

Syracuse has had a very rapid growth and has become a very important place and is still increasing. Its situation for business is equal to any inland town in the country. I spent two days in the vicinity of Syracuse, and was very much pleased with the country around it.

I left Syracuse at 4 o'clock in the afternoon in the cars and arrived at Utica 52 miles, a little after dark, and at daybreak the next morning we were at Schenectady, 90 miles further—and as soon as we could exchange cars we were off for Albany, where we arrived at 6 o'clock. At 7 we left Albany for New York. The passage down the river is very pleasant: Hudson, Catskill, Poughkeepsie, West Point, &c. are places of interest, and the highlands and palisades afford much grand and picturesque scenery. We arrived at New York at 9 minutes past 4, having made the quickest passage on record from Albany to New York. At 5 o'clock I left New York, and at 7 the next morning I was at my own house, having travelled since I left home about 4000 miles, and the last 600 of it in 39 hours, including stops.

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General Views of the Western Country.

Those who have read the foregoing pages will perceive that I have travelled through some of the most important portions of our country, and having travelled much with men who are extensively acquainted with other portions of the country, I have received the benefit of their observations and comparisons upon the spot, and I will now give some general remarks with regard to the soil, climate, agriculture, population, &c., and the conclusions which I have drawn, in the hope that it may be useful to some of my readers and save many from the trouble and sacrifice consequent to an ill-advised removal of their families, with false hopes and under circumstances which render such a removal extremely unwise and in a majority of cases unfortunate.

Travelling from the Atlantic coasts westward, the country is divided into three great divisions, which are plainly distinguished from each other by their natural features. The first is that part of the country which lies east of the Alleghany mountains, and may be called the Atlantic country, or the east; the second embraces all the country west of the mountains and east of the Wabash river and a line drawn from that river to the west end of lake Erie, and may be termed the middle or forest country; and the third embraces all beyond the Wabash, even to the Rocky mountains, and may be called the prairie country, or the far west.

The first division is distinguished by the unevenness of the surface, being broken into hills and valleys, and generally possesses a hard, rocky soil. This is the country for romantic views and picturesque scenery, and better adapted for a grazing, than a grain growing country, though there are tracts in this division, equal at least, to the most fertile districts in our whole country: these tracts are found in the eastern part of Maine, the valley of the Connecticut river, a tract about thirty miles wide west of Albany, reaching nearly to lake Erie, and a large tract lying in the central and southern portions of Pennsylvania; and there may be other tracts of small extent of equal fertility, but as this division has become an old and well settled country, and is generally well known, I shall say little more about it except for the purpose of comparison.

After crossing the Alleghanies we descend into the great valley of the Mississippi and its tributaries. Western Pennsylvania and the eastern part of Ohio are hilly, but the hills are smooth and

rounded, and of small elevation compared with the hills of the east, and they diminish in height until they become only gentle swells, or what is called rolling, and the north west corner of Ohio, and the central and southern parts of Indiana, are flat and level, or nearly so.

(*Continued on page* 436.)

From the Farmer's Cabinet.

HAYMAKING.

Sir,—As the season for haymaking is near at hand, I feel desirous of bringing your numerous readers acquainted with a *practice*, that is based on so true a *theory*, that—as ought always to be the case—they go hand in hand to the end of the chapter. As so much of the happiness of the farmer depends on the stock of hay which he can prepare for his winter consumption, any information, tending to facilitate the process, and at the same time lessen the labor and expense and hazard of the business, I consider of great importance. The following observations, reflections and instructions, are therefore presented to their notice, by their friend and well-wisher,

JONAH CORBIT.

N. J., May, 1840.

"Having observed, that in a season where there was no rain whatever, and the hay had been made with rapidity, and carried within a short time after it had been cut, that a greater quantity had been injured by being over-heated and burnt, than in a catching irregular season; that when hay had not heated in the stack, it was frequently mouldy; that as hay lost its native green color and approached a brown, it lost its nutritive qualities; and that, altogether, the making of hay, as usually conducted, was a very precarious and troblesome operation:—I determined on trying to arrange a system on more regular and certain principles, and in which I succeded—and by adopting a certain and regular course of operations, was enabled to make my hay of a uniform good quality; and, let the weather be as it might, at a pretty regular expense for labor, and considering such a process not only of importance, as it insures a more perfect quality, but as it affords a more certain protection against the injuries usually consequent on the uncertainty of the weather, and over-heating in the stack, and that it thus removes two great causes of anxiety, it may be well worth the public attention.

In the first place, then, as to the state of the weather—it generally happens at this season of the year, that there are three or four rainy and three or four dry days, [in England,]—therefore, on beginning to cut the grass, as it is well known the grass may be cut and suffered to remain in the swarth for several days without injury, and it being desirable where hands are plenty to have a good quantity or as much as will complete a stack in a day, in the same state of forwardness, I should prefer, rather than to wait for fine weather, to begin to cut in rainy weather. However, be this as it may, the swarths should not be opened but on a fine day, and when this is done, the grass should be well shaken apart and equally spread over the ground—and as soon as the upper surface is dry, turn it well over, and in this operation great care should be taken to open and spread any cocks that may not have been divided in the first opening: this being done, commence raking into wind-rows in time, that the whole may be made into small cocks before night. *The second day these cocks must remain untouched, let the weather be wet or dry.* The third day, if the weather be certain and fine, throw the cocks open; but if the weather be wet or threatening, they may remain another day, or until it is certain to be fine for the day. The cocks should then be thrown, according to the crop, into beds of two or three rows, and after three or four hours' exposure, turned over, and taking time to gather the whole into wind-rows and cocks before night—let this operation commence accordingly, and *none be left open.* The day after this, which in fine weather will be the fourth, *the cocks must again remain untouched, or not be opened, whether the weather be wet or dry.* On the fifth, or the next dry day, these cocks will only require to be opened for an hour or two, after which time they will be fit for the stack.

The novelty of this mode, consists only in suffering the hay to reman in cock the second, third or alternate days; and at first sight it may appear that so much time in fine weather must be lost, but this is by no means the case, for whilst the hay remains in cocks, a slight fermentation, or what is termed sweating, will take place; and in consequence, after it has been opened on the third and fifth days, it will prove to be just as forward as if it had been worked every day; and the advantages resulting from this are obviously the following:

By shortening the time of open exposure, the color of the hay is more perfectly preserved, and consequently, the quality—and the fermentation or sweating which takes place in the cocks, proves so much to have diminished the principle or inclination, as to prevent its heating injuriously in the stack—and the whole operation of making, whether it takes four days or eight, requires three days' labor only; and the hay being left in that state every night, in which it is the least possibly exposed to the injuries of the weather, and in which it may remain for a day or two in uncertain weather, without injurious exposure, most painful anxiety and useless attendance of labors are obviated."—*Hayward Science of Agriculture.*

From the Albany Cultivator.

LIME.

"Were lime a manure, it would be a noble substance for enriching and restoring fertility to lands worn out by a succession of crops; but, as worn out land is not restored to fertility by the application of lime, we are warranted to consider it in a different light; or, in other words, as an article to bring certain principles into action, previously possessed by the soil. This conclusion is sanctioned by experience; and experience is a far better guide than the most plausible theory."—*Morton on Soils.*

We think this short extract has, in very few words, set right a matter of great importance to the farmer, and corrected an error which is prevalent, not only in Great Britain, but also to a considerable extent, in this country, viz: that lime will restore to fertility all lands that have been exhausted by cropping. But lime is not a manure, in the sense in which animal and vegetable matter is—it is not nutritive itself, it only assists in nutrition; and however important the part it acts in this way, unless nutritive matter is existing in the soil, ready to be appropriated to the use of plants, the application of lime is entirely useless, so far as the restoration to fertility is concerned. Every one can see, that when all the vegetable and animal matter has been exhausted in a soil, by ceaseless cropping, and nothing but the primitive earths, silex, alumine, lime, magnesia, &c. of which it is composed, remaining, that the application of more of any one of these primitive earths, will add nothing to its fertility or capability of producing vegetation.

If, on the contrary, there is vegetable or nutritive matter in the soil, lying dormant for want of exciting agents, or in an insoluble state, and therefore inaccessible to vegetation, an application of lime by removing one or both the causes, may render the most essential aid to the farmer, in the production of his crops. A neglect of this important fact has led to serious error in the use of lime in England, and in this country. Because, in some cases lime has produced the best effects, it was at once expected in all; and, because, where nutritive matter existed to be called into action by the lime, a great increase of the crops were the result, it was supposed that this effect could be renewed at pleasure; and liming without manuring, became at once the order of the day. As must have been expected, a failure in the crops, in such cases, has been the result; and a prejudice against the use of lime, resulting from its application on false principles, has succeeded the most unbounded confidence in its favor.

Lime is a noble substance—it cannot be dispensed with in soils, but like the other earths it is powerless alone. The man who eats curry or cayenne with his roast beef, does not expect his nourishment from them—they are only the accessories, the stimulating agents. The farmer who has just views on the subject of vegetable nutrition, does not expect his plants to subsist on the lime, salt or gypsum he furnishes them; nor does he expect that these stimulants of them, without the application, in some form, of vegetable or animal matter of which the plants can avail themselves, will restore fertility to exhausted soils, or continue it in such as now possess it. No farmer should forget that no single substance can ensure fertility; not one of the earths or one of the stimulating or nutritive manures, can do this; the presence of all is necessary—and the best proportions ensure the greatest productiveness in any soil.

JERUSALEM ARTICHOKE.—Some experiments with this common root are on record, which would seem to show that, with proper management, it might be made valuable in cultivation, particularly as a winter food for store hogs. Once introduced into a piece of light rich ground, it is not eradicated without considerable difficulty, as all those who have planted it in their gardens are aware. In the kitchen garden, the artichoke should always have a place, as the fresh roots in the spring, gathered and sliced thin and eaten with vinegar, are relished by most peaple—and they make a very good article for pickling. If intended for swine, they should be planted at least two years before the swine are turned into them—after which, the annual rooting of the swine will be all the cultivation or stirring of the earth that will be required. The smallest pieces are sure to grow, which renders their propagation as easy as their extirpation is difficult.—*Albany Cultivator.*

From the Maine Farmer.

SIGNS OF THE TIMES.

Although we have put a political caption to the head of this article—or rather, one which politicians love to use, we are not about to enter the battle ground of either of the contending parties as they are at present organized. We wish, however, to call the attention of the friends of our own country to some of the signs now rising in the distant horizon, which indicate that before many years there will be a change in the existing tariff, and that those who live south of Mason and Dixon's line, and who so bitterly opposed that portion of the tariff which afforded encouragement to Northern Manufacturers and Northern Wool Growers, even to threatening a dissolution of the Union, will ere long change positions and beg right heartily for such an alteration as shall also protect them—aye protect them in their own staple products, viz: cotton, tobacco, and hereafter, silk. And we much mistake if they will not then be willing to shake hands with their brethren of the North, and unite in forming such a schedule of duties as shall be mutually beneficial to all sections of the Union. This is what they ought to have done before—this is what nature itself points out should be done. The two extremes of our country, embracing as it does, such an extent of territory—stretching through such a variety of climate, and well adapted to supply the wants of each other, one would suppose that it would be an object for each to study the other's welfare in accommodating each other. The North is well adapted to the growth of wool, lumber, hay, oats, and to manufacturing. The South to the production of cotton, rice, silk, sugar, &c. Why not then arrange our tariff that each branch shall be encouraged? But the South, by their opposition to the North, have virtually said, we care nothing about you—we had rather trade with Europe—she will accommodate us on most any terms—and we are not going to assist in building you up when our mother country is so kind to us. So off with your duties upon woolens, &c., or we will blow up the Union. England, too, when she saw that she could accomplish two objects with one act, namely, sow dissension among us and have our duties reduced, sung cherrily the siren song of free trade to us, but at the same time shut her own ports to the whole world, except in such cases and in such times as it would be for her own particular benefit to open them or change her restrictions. So, to keep the peace among ourselves, the duties on woollens, &c., were reduced—little or no duty put upon silks, and some other articles. But to the signs, what are they? We see, by the American Farmer, that there is to be a grand convention of tobacco growers in Washington city this month. What is the matter? Why, it is found that this article, which is now an immense article of trade throughout the world, is restricted in some countries. France, for instance, prefers to encourage her own people in this business, to the great detriment of the growers of the U. States; and while we have been so good natured as to admit her silk almost duty free—she has been so ill natured as to hamper our tobacco trade in such a way, as to give her own people the monopoly. And the Southerners begin to think that it will be best to shut down the gates upon their silks, unless they will change their course in regard to tobacco. Besides, the culture of silk is coming into vogue in the South, and may be made so extensive as to put Europe in the shade, if it could be encouraged, or the French and other silks kept back.

Again, England is waking up to the culture of cotton in her East India possessions. She has sent an agent into this country and has engaged nine practical cotton planters to go and take charge of as many plantations in India. They are to have a salary of twelve hundred pounds per annum each. Native laborers can be employed to any extent in India for *two dollars* per month. Great Britain has appropriated twelve thousand pounds to push forward the enterprise, and it will not be long before the Northern manufacturer can obtain his cotton from India, cheaper than from Georgia or Alabama. In addition to this, Texas will be pouring it into the market also. Will not the Southern planter cry out for a prohibitory duty on cotton? We have no doubt of it—and for one we should be willing to give it, provided they would also consent to such an arrangment that all sections could be mutually encouraged in the crops and manufactures peculiar to their climate and situation.

Our farmers, *who control the ballot-box*, must, by judicious legislation, provide a stable home market for the products of their industry. We beseech them to weigh well the fact, that there was brought into the United States and sold, no less than one hundred and fifty-seven millions' worth of foreign goods in the year 1830. And in this connection, remember that the duty on American flour in English ports, on the 15th of April, 1840, was two dollars and fifty cents per barrel. This is more than the flour is worth in the wheat growing sections of Ohio, Michigan, Indiana, and Illinois. Shall our own agricultural interest have no countervailing protection? We imported, last year, twentyone millions of silks, *duty free*. Suppose, instead of sending twentyone millions of specie, or its equivalent, to pay for these silks, we had manufactured that amount more of goods at home, at at least ten millions of provisions, in one shape and another, would have been consumed in the operation; and all the profits of the manufacturers, the producers of the raw material, mechanic labor, and the food consumed by all, would have enriched our own citizens.

Our mechanics, such as shoemakers, blacksmiths, carpenters, tailors, and the like, have a deep interest in the encouragement and protection of domestic manufactures. Indeed their interests are the same with nearly all other classes, who must depend on the productive industry of the country for their own individual prosperity.—Hence, the great national importance of encouraging, by all suitable means, every man, woman, and child, to be both industrious and economical. Hence our *republican* family should not so disgrace themselves as to madly run into debt to Europe 147 millions a year, for worthless aristocratic finery, and then have one half of the property in the Union sold under the hammer to foot the bill. All sensible men should insist on an effectual protective tariff, that shall cut off this disastrous extravagance. If the rich will have one hundred millions worth of silks, wines and the like, from abroad, let them pay into the national treasury at least forty millions, which can be well expended as a common school fund, as has been done with the surplus belonging to the State of New York. This will be a tax upon luxury for the benefit of education, general science, and intelligence.

From the New Genesee Farmer.

MESSRS EDITORS—I saw a statement in your last number, of an ox that was taken sick and died, supposed from the horn disease. Now, I am not a farrier nor a farrier's son, but I learned forty years since how to cure the horn distemper, and can do it without risk or failure if applied to in season. I have cured them when fat, and past standing, and in winter when they were poor. You will easily discover when it is the horn ail, by their dull sunken, dry nose, cold horns, and refusing to eat.

The following is my remedy:—Take half a table spoonful each of spirits of turpentine, camphor, fine salt, and black pepper made fine, and one gill of sharp vinegar. Mix them together, warm them to a blood heat, turn the animal's head so that the ear will be uppermost—take hold of the ear and put in as much as you can, hold it tight, and pull it up several times; then serve the other the same—do it once a day for three or four days—split the tail if necessary—and the cure will be effected. There is no mistake about it. A. DIBBLE.

Byron, Genesee co., N. Y.

From the same.

THE CURCULIO.

The fruit-garden is a delightful promenade in summer and autumn; but too many freeholders forget all about it in the planting season. Where the enclosure is large, plums, apricots, and nectarines, ought to stand in a quarter by themselves, so that the hogs may be confined among them at the time when the Curculio is most active. This suggestion had not occurred to us when we planted our fruit-garden; and the benefits to be derived from the presence of the hogs, are in some measure, lost. As a remedy, however, we have fed screening and other small grains, under some of those trees; and a few days ago we went to ascertain the result. A sheet was first spread under several trees in a remote part of the garden which had received no attention, and from these we got more than twenty of these insects; but not a solitary one was caught where the hogs had trodden the ground hard.

Since that time we have frequently gone into the fruit-garden with a basket of grain in one hand, and a mallet in the other, the whole drove of hogs following. Having jarred the tree with the mallet, by striking against the stump of a limb cut off for the purpose, we strewed the contents of the basket without delay. This insect is timid, and its danger in lying on the ground at this juncture is not merely ideal, for a fearful trampling succeeds; and if it should not be instanly crushed, we hope it will not soon return to the spot.

Stirring the ground.—Nothing conduces more to the growth of crops than frequent stirring of the ground; especially is this necessary in dry weather, and where the soil is inclined to bake or become hard. Ground which is frequently stirred in dry weather, will be found moist, while that which is not stirred, will become perfectly dry. We say then, stir often, use the hoe, rake, cultivator, whatever you please, but if you want great crops be sure and keep stirring.—*Genesee Far*

From the Journal of the English Agricultural Society.

ON THE USE OF SALTPETRE AS MANURE.

BY GEORGE KIMBERLEY, ESQ.

To take a retrospective view of the use of saltpetre (or nitrate of potash) as a manure, may well at the present day be considered superfluous, but it may not be amiss to remind the reader that saltpetre was known and used as long since as the time of Virgil, and we find a notice or hint of the effects of nitre or nitrous water worth the attention of farmers in the *Sylva* of Bacon, published in the year 1670. Evelyn also understood some of the advantages of saltpetre as a manure; it has also been tried and reported on by various authors down to the year 1828, when, in No. 3 of the Quarterly Journal of Agriculture we find an account of its use by William Hawkins, Esq., of Hitchin, Hertfordshire, where the experiments appear very satisfactory and conclusive. Since that time, though the use of saltpetre has been partially continued, yet it may be said, considering its value, that it has been much neglected; nor does it ever appear to have been established as a standard auxiliary manure. Mr Cuthbert Johnson justly observes, "that the agricultural uses of saltpetre have not have not been examined so carefully or generally as they ought to have been." The neglect of so valuable a fertiliser when there are thousands of acres requiring such assistance, is most extraordinary, and attempts have been made by different authors to account for it. One supposes that the price may have been an obstacle; another that it was not obtained pure, and therefore the experiments failed. But my observations on the use of artificial manures generally lead me to other conclusions, and I think the history of saltpetre furnishes us with the history of nearly all artificial, but particularly saline manures, the use of which, I regret to observe, has been successively and hastily adopted, without reference in many cases to season, soil, climate, or quantity; and as a few fortunate experiments *have started into a fashion* the use of these articles, so one or two unseasonable or improper applications has at once condemned them to neglect and oblivion; and though from the advancement of science I should now hope for some satisfactory result from the trial of that class of fertilisers, I fear that the indiscriminate use to which I daily see and hear of their being applied will again end in their expulsion from that rank in which they ought to stand, as great and useful auxiliaries to our stock of known manures. It is not my intention to make a compilation from the various authors who have written on saltpetre, but as all persons may not have seen the article above mentioned in the Quarterly Journal, I may, I hope, be excused for extracting so much of the report as will give some weight to my own opinions, and direct the attention of the public to so important a statement. It there appears that Lord Dacre and 10 other gentlemen and farmers have used saltpetre for different periods, varying from 15 to 3 years, on almost all sorts of crops, and though there are some differences of opinion as to its merits as a manure for wheat, yet the whole of the report may be considered as conclusive of the value of saltpetre as a top dressing; but I beg to refer gentlemen to the report itself, which will be found as above mentioned.

Now, as to my own experience, it was in the year 1827 that I first used saltpetre in any quantity, and as it is my constant practice to try every artificial manure by some standard of known value, I manured part of 14 acres of seeds in the autumn of 1826 with 10 cart loads of good dung per acre, leaving a portion in the centre of the field to be dressed with saltpetre in the following spring. The decomposition of the dung, and the protection it had afforded during the winter, caused the clover thus manured to be very rank and forward in growth, and far superior to the unmanured part, which looked weak and bare. I however waited till the clover had just begun to grow, and then, after having reduced the saltpetre to a fine powder it was sown by hand on the land left for that purpose. In about a fortnight from that time I went to examine it, and could see distinctly where the saltpetre had been used: it already surpassed the part manured with horse-dung in the breadth of its leaves, and richness of its color, which was changed to a very dark green, and it continued through the season to grow with a luxuriance of vegetation that produced a very large crop of clover, quite equal, if not superior, to that of horse manure; nor could we distinguish any difference in the value in the succeeding crop of wheat. The salpetre was used at the rate of 4 cwt. per acre; cost, 26*s.* 6*d.* in London; carriage and sowing included, about 29*s.* per acre. The horse manure from the farmyard, 10 loads, or 25 yards, at 4*s.* per yard; cartage, 10*s.*; spreading, 2*s.* making a total of 5*l.* 12*s.* per acre. The expense would have been much increased had not the field been near the farm. The trial was on sandy land of moderate quality. I could add a great number more experiments, which would be but a repetition of the above, and I have used it on spring corn with equal success. I also recommended it to a friend who tried it on oats, barley, and grass, and a few weeks after the application I had an opportunity of inspecting the crops, which were considerably higher and of a much darker green where the saltpetre had been used than the other parts of the fields, and were judged to contain from 8 to 12 bushels of corn more per acre. Its effects were equally striking on the meadow. It was used at 1 cwt. per acre.

Nitrate of potash, according to Thomson, consists of

1 atom of Nitric Acid	6·75
1 atom of Potash	6·00
	12·75
Or (in 100 parts) Nitric Acid	54·34 parts
Potash	45·66

And it is said by Davy to contain 1 part of Azote, 6 of Oxygen, and 1 of Potassium.

It would be presumption were I to venture an opinion on its mode of operation, nor for our present purpose may it be necessary; a well authenticated collection of practical facts are of more service and better understood by agriculturists. It may be asked, Do you use saltpetre now? to which I answer, Yes, and, while I require manure, probably always shall use it, but not by itself. I consider saltpetre to be a necessary constituent and valuable component part of all manures. I can safely recommend its use alone as a top-dressing on all crops, (except wheat which I have not tried* clover and all trefoils particularly, and, as far as my experience goes, as to the best method and time of application, I think it should be finely pulverised and sown with care and regularity on corn or grass, at the rate of 1 cwt. to 1 1-4 cwt. per acre, just when the crops begin to feel the influence of spring, and vegetation is making its first efforts. Its effects then, particularly if the weather is favorable, are as sudden as they are gratifying, and the rapid change in the color and growth of the crop gives ample and satisfactory proof of its almost miraculous powers.

GEORGE KIMBERLEY.

Trotsworth, Surrey, Nov. 18th, 1839.

* When tried as a top dressing on wheat, it has been found to increase the bulk of straw; but in many cases to occasion mildew.

From the Third Report on the Agriculture of Massachusetts.

ON PLOUGHING IN CROPS FOR MANURE.

Boston, March 25, 1840.

Dr S. L. Dana—Dear Sir—Two successful and experienced farmers, one in Franklin and one in Berkshire county, have come to the conclusion that, in turning in crops by way of enriching the land, more benefit is derived, that is, the fertility of the land is more advanced by ploughing in a crop after it has become dried or dead, than by turning it in its greatest luxuriance and greenness. One of them showed me the results of an experiment tending to this point, which appeared strongly to favor his conclusions. A well-established fact is better than the most elaborate hypothesis; and prejudices, however strong, must yield to facts.

Allow me under these circumstances to inquire whether, upon your principles or philosophy of vegetation, there occur to you any good reasons for a result so much at variance with popular opinion. Your views in full on this subject, will add to the obligations under which you have already laid the public and your respectful friend and servant,

HENRY COLMAN.

Lowell, March 28, 1840.

Dear Sir—The results referred to in your letter are opposed to the common opinion. Common opinion, especially in agriculture, is not always founded on observation. It is oftener prejudice, than opinion; and when inconsistent with well known facts, has not its source in observation or experiment. The whole resolves itself into this, *dry plants give more geine than green.* This follows from the little we know of the process termed "fermentation;" I use the term as commonly expressive of the spontaneous decay of vegetables. It includes the three stages of vinous, acid and putrefactive fermentation. These are not necessarily dependent, following in regular progression. They are not cause and effect. Putrefaction may commence first, and it is so different from the other two, in all its stages and products, that the term "fermentation" ought never to have been applied to it. The greater part of vegetables are susceptible of putrefaction only; a small number become acid at once, and a still smaller number ever undergo vinous, acetous, and putrefactive fermentation. Fermentation then, in its widest sense, will help us to understand how dry crops may be better manures than green. Let us glance at the principles and products of fermentation.

1st. What vegetable substances are susceptible of the vinous fermentation, and what are its products?

The juices only which contain sugar or starch,

convertible first into gum and then into sugar by the action of *azotized* vegetable principles, especially gluten. Pure sugar never ferments. The vinous fermentation must be excited by some substance containing nitrogen. There are three things essential to vinous fermentation—air or oxygen gas, moisture in due proportion, and a temperature never below 50° F., nor above 86° F. The products of this process are gases, ferment, or yeast, and vinous liquor. The gases are carbonic acid and hydrogen: the yeast proceeds from a change in the organization of the gluten and albumen: some late French experimenters think it proceeds from a continued evolution of infusorial plants; hence yeast begets yeast, like sowing crops of seed. However, let us leave speculation. The main facts are as above stated. If, then, we plough in green plants, we put them in a temperature favorable to the commencement of vinous fermentation; we bury them full of sap—the requisite moisture for vinous fermentation,—we cover them whilst their saccharine principle is in its perfection. Every thing favors vinous fermentation. The sugar and starch of the plant fermented by its gluten and albumen, are converted into gases and alcohol; the former are lost in air, the last washes away or is changed to vinegar. All that remains for the farmer is the altered gluten and albumen, which soon putrefy and form geine. All the starch and sugar of the plant are thus lost.

2d. What vegetable substances are susceptible of the acid fermentation, and what are its products?

The substances are, first, sugar, which in certain cases becomes acid, without undergoing vinous fermentation; second, gum. The circumstances essential to acid fermentation are air, moisture, and a temperature from 65° to 70° F.; acetic acid is itself the proper ferment of acid fermentation. Vinegar, as is well known, singularly promotes the formation of vinegar in vinous liquors. The products are, carbonic acid, acetic acid or vinegar, and some other acids, especially that called nanceic or zumic acid, which if not lactic, is perhaps only acetic acid, holding in combination some azotized substance. This acid combines with the alkaline and earthy ingredients of plants and soils, and forms very soluble salts. Green plants, ploughed in, are at once placed in a situation most favorable for undergoing acid fermentation. We suffer a loss of a part of the carbon, and in addition to the sugar and starch we now lose the gum of the plants. All these are capable of producing geine, and hence in ploughing in green crops, we lose a portion of manure.

3d. What are the vegetable substances susceptible of putrefaction, and what are its products?

With the exception of oils, resins, &c., every organized part of every vegetable may putrefy. The circumstances essential to this process, are air, a temperature not below 45°, and moisture. No perfectly dry plant every putrefies, nor will a moist one, if air is excluded. I have had a capital example of the last, in a piece of a white birch tree, dug up from a depth of twentyfive feet below the surface in Lowell, this winter. It must have been inhumed there probably before the creation of man, at least at a time "whereof the memory of man runneth not to the contrary," yet this most perishable of all wood is nearly as sound as if cut from the forest last fall. A dried plant has parted with most of its sap, that moisture essential to the commencement of vinous and acetous fermentation. During the very act of decay, from the moment when its living functions have ceased, new combinations of its elements begin. It has already begun to be destroyed by the very agents which gave it life. This is the beginning of putrefaction. Let us not be deceived by a name. Putrefaction we always associate with disgusting effluvia. But in the wide sense we have defined it, it includes also the fragrance of new hay. Whenever bodies consist only of oxygen, hydrogen, carbon, and a trace of azote, their putrefaction is fragrant or inodorous; when, in addition to these, bodies contain large portions of azotised matter, gluten, albumen, or sulphur, and phosphorus, putrefaction evolves abominable odors. To the agriculturist, putrefaction is always a wholesome process, beneficial to his best interests when promoted and controlled. There is only one case where this process produces loss:—this may be termed *destructive* putrefaction: it is produced by heaping together green plants, or sometimes by moistening dry vegetable substances. Here oxygen is rapidly absorbed, and finally the mass takes fire and burns. Up to the moment of inflammation this is putrefaction. New hay, stacked too green, is a familiar example. Volumes of steam are evolved, which proceed partly from the decomposition of the plant; decompositions and recompositions rapidly ensue; these are the ferment, which keeps up the action till the plants burn.—Doubtless all green plants ploughed in, undergo to a greater or less extent destructive putrefaction, which succeeds the vinous and acid fermentations, perhaps caused by the very rapidity of these processes. Hence, in addition to the sugar, starch, and gum of the plant, we lose a large portion of its other substances, by turning it in green. The products of this rapid fermentation have been but little studied. Happy the farmer who never witnesses the process. He should never induce it, and may generally prevent its extension when once begun. It is a dead loss to him; but in all other cases of putrefaction the products are valuable:—these vary according as the process takes place: 1st, in air; 2d, at the surface of the ground; or, 3d, deep in the interior of the earth. The last need not detain us—it produces all the varieties of coal.

1st. In the free air, having access to all parts of a plant, putrefaction produces carbonic acid, nitric acid, and water. But ordinarily, in the air, as oxygen does not find ready access to all parts, a portion of the hydrogen of the plant combines then with the carbon, sulphur, phosphorus and azote of the plant, and we have carburetted, sulphuretted, and phosphuretted hydrogen, and ammonia produced. Now, as these exist but in small quantity in vegetables, the loss of hydrogen will not be very great by drying the plants, and it is possible that the removal of these may cause the other elements to enter into more stable combinations, better fitted to produce geine.

In all cases of putrefaction in the open air, oxygen is absorbed, and an equal bulk of carbonic acid given out, while, at the same time, the oxygen and hydrogen of the plant escape as water. The result is, that in the substance left, carbon exists in a greater portion, than in an equal weight of fresh vegetables. In all cases of putrefaction, new products are formed; these again resolve into others; and this action goes on till we have no longer any organic products; we have only binary or inorganic substances left. All our researches into the philosophy of the changes in fermentation, terminate in these binary products, that is, in compounds consiting of only two elements. During all these various changes, a variety of substances must, of course, be formed. As the elements of living, so the elements of dead plants, are continually changing into new forms.

Nature is admirably simple, and never so learned as our books. We ought not to dignify with a new name, every new product of putrefaction, which we may fortunately arrest. However various these products may be, whether products or educts of putrefaction, or of our analytical methods of separating them, all putrefaction at the surface of the earth, ends by forming a brownish, black, powdery mass, which combines with the alkaline, earthy and metalic basis in the plant. This substance has been called "GEINE." As I have elsewhere defined it, it is decomposed organic matter of soil. It is the product of putrefaction—continually subjected to air and moisture, it is finally wholly dissipated in air, leaving only the inorganic bases of the plant, with which it once combined.

Now, whether we consider this as a simple substance, or composed of several others, called crenic, apocrenic, puteanic, ulmic acids, glairin, apotheme, extract, humus, or mould, agriculture ever has, and probably ever will consider it one and the same thing requiring always similar treatment to produce it; similar treatment to render it soluble when produced; similar treatment to render it an effectual manure. It is the end of all compost heaps to produce soluble geine, no matter how compound our chemistry may teach this substance to be.

Among the many economical modes of producing geine, the ploughing in of vegetable matter, has held a high rank. Nature teaches us to turn in the dried plant. Dried leaves are her favorite morsels, and the very fact, that Nature always takes the dried plant, from which to prepare the food of growing vegetables, should have taught us long ago, the wisdom of ploughing in dry crops. The careful collecting and husbanding of dried leaves, their superior efficacy in forming compost, bears witness to the facts stated in your letter. That the use of dried leaves for compost, has not led to the turning in of dry crops, has probably arisen from the consideration, that a greater quantity of geine may be produced, by turning in two or three green crops in a season, than by one crop of dry. This needs experimental confirmation. The very act of tillage, on Mr Keely's plan, by exposing the insoluble geine of one crop to air, renders it soluble, while at the same time, two or three green crops must form a greater quantity of salts. If only one crop can be turned in, let it be dry. All our philosophy, and the late experiments of your agricultural friend, confirm this view.

With great respect,

I am very truly yours,

SAM'L L. DANA.

REV. H. COLMAN,

Agricultural Commissioner.

WEEDS.—Some persons pretend to believe that weeds are an advantage as a shade to young crops in dry weather; but this is a great error and only a subterfuge for indolence. It is well known that weeds rapidly absorb the moisture and nutriment from the soil; and on examining beneath the surface in dry weather it will be found that the ground is much dryer where covered with weeds than where kept clean. They deserve no protection from the farmer, and should be destroyed while young.—*Genesee Far.*

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

BOSTON, WEDNESDAY, JULY 1, 1840.

EXPERIMENT WITH MARSH MUD.

To the Editor of the New England Farmer:

If not quite agreeable to one's own feelings to detail experiments not altogether successful, yet it may be of considerable advantage to others. Influenced by this consideration, I will proceed to give you an account good and evil, of an experiment with *marsh mud*.

In 1838 I procured nearly forty tons of this and had it brought to my place, some twelve or fourteen miles from the ocean. A part of it was put in holes as a manure for potatoes, on land ploughed that spring, and which had for several years been used as pasture, the soil being a mixture of sandy and slaty loam, of middling quality; and a part on a small piece in another field of gravelly loam; and from a comparison of the crops raised on these pieces with those in other parts of the same fields where common manure was used, and with the crops in the vicinity both in quantity and quality, I think the benefit was obvious. Most potatoes in this vicinity that year were of a poor quality and much injured by worms. That portion of mine manured with this mud were unaffected with worms, came out with smooth skins, when cooked mealy, of a pleasant taste, and the yield good.

Another portion of the mud was spread upon land cultivated with Indian wheat. This crop was not certainly benefitted by it. The soil of this lot is a sandy loam, mostly diluvial and rather dry.

Some of it was used by a person who hired a piece of land to cultivate. He tried it in the hills with corn: most of the corn failed to come up; but he thought that what did come up was helped by the application. The corn was of good color and stout.

A part was applied to land cultivated with beets, carrots, parsnips, onions, &c., all of which, but especially the onions, (the greater part of which were what is called the potato onion,) were very evidently improved by it in quantity and quality.

In 1839 I planted one of the fields again with potatoes: the crop was good, and being without question improved by the mud applied the year before.

The other parts of the fields where the mud had been used were also in 1839 planted with corn; and from various considerations which it cannot be important to state, it is rendered certain that the yield was considerably less than it would have been had none of this article been spread upon the land. One circumstance, however, I will mention: a part of the mud was kept in a pile the first year; was often and well worked over, and mixed in part with some earth and a quantity of lime, and I believe a little ashes. Some of this was put in holes with the corn, and planted where the Indian wheat was cultivated the year before. In this part of the field the corn came up very badly, grew very slow and remained extremely small through the year, very little if any of it getting to be over two feet high, slender in proportion, and the ears very small, where there were any. White beans were planted in the hills where the corn failed to come up, but these flourished no better.

This year the fields are sown mostly with wheat, barley, oats and millet: those parts where the mud was used in the largest quantity are occupied mostly with wheat; and it is very apparent that just about in proportion to the quantity of the mud is the unpromising state of the wheat. The stocks are small and sickly in their appearance, while the leaves die at the upper ends and sides, resembling in many particulars a field parched up with excessive drought. The effect upon the other grains is not yet so obvious, and indeed from the parts of the ground which they occupy, it will not be easy in the end to determine with so much clearness how far they may be helped or injured by this (to me) experimental manure.

In my vegetable garden I continue to have satisfactory evidence of its beneficial effect.

I am aware, Mr Editor, that these experiments have not been made in a very philosophical or farmer-like manner, and therefore the results should not be allowed to have great influence upon the opinions and practices of others; and yet from their extent and the time occupied by them, they may be regarded as entitled to some consideration; and if they should be instrumental in helping any brother farmers to raise larger crops of some kinds and save them from partial losses in others, the object of giving an account of them will be answered, and a small return be made for the many helps I have received from your highly interesting and useful publication, by the many *successful* experiments brought before the public. B.

P. S.—Since writing this I have heard it observed that the very neighbor who commenced a trial of the mud about the time I did, sustained a similar failure in his corn to that which I have mentioned, and that having laid down his fields to grass, is likely to realise a most entire failure in the crop this year: the grass (timothy) being very small, of sickly appearance, and the leaves also turning black at the ends and sides. How his experiments have resulted in other crops, I am not able to state.

EVERY THING IN ITS ORDER.

Oxen and horses can do a great deal of work in a year without much inconvenience, if they are wisely and kindly treated. I am not about to give a full lecture on the subject of their treatment: my remarks are intended to apply to a single point, which is that they should not be kept unnecessarily for any time in harness. My attention was directed to this subject by an incident which fell under my observation some time since. A farmer whose conduct fell under my observation, observed to his sons that they might get the team out for he was going to plough that day. The oxen were soon yoked and fastened to the cart in which they were to take the plough and other implements which would be needed in the labors of the day. But when the plough was brought out it was found that one of the handles needed some repair; then a chain was discovered to be missing: this was finally *looked* up. Now, said the father, fetch the iron bar, for we shall want to dig the stones which the plough may lay open. The iron bar had been lent a few days before to one of the neighbors who lived across the street, who had neglected to return it and was now from home. After hunting about his premises awhile this was also secured. Now all things seemed to be ready for a start; the oxen set forward, when the squeaking of the wheels reminded the company that they had forgotten to grease them the night before, as they had resolved to do. It will never do, said Mr L., to go to work with the wheels in such a condition; so they set to and finished this job. A full hour and a half had passed away since the oxen had been taken from the stall. Who can not see that under such management, if the cattle of Mr L. perform the same amount of work, they have a much more exhausting service than those of his neighbor, Mr F., who when about to use his team, gets every thing ready before they are taken from the crib. I think it would not be overstating to say, that on the days when they are worked, Mr L.'s cattle have upon an average two hours less time to feed and rest than those of Mr F. Who will be surprised then to know, that though those of both are liberally fed, the team of Mr S. always looks thin, dejected and worn out, while those of Mr F. are in good condition, sprightly, and strong for labor. The last thing in getting ready for the day's work should be to put in the team; the first thing after the labors of the day are over is to take off the yoke and set the faithful oxen free. Whoever will listen to this advice and conform to it, will, whatever be his present sentiments, come to the same conclusions. B.

MAMMOTH EGGS.

Among other remarkable productions of the day, we have seen none more so than a couple of eggs—hens eggs—in the office of J. S. & T. B. Skinner, of this city, (Baltimore.) They are from hens which cost five dollars each, and which are, in the body, the size of the cock of the common breed. Every egg is full of meat, to a proverb—but the eggs of the Ostrich breed contain more than double as much meat as the egg of the common barnyard fowl. This is not stated at random. One of each was weighed in the Chesapeake Bank by troy weight, on the 22d inst. The egg of "Speckle," of the Ostrich breed, weighed 3 oz. 1 dwt. 17 grains; whereas the egg of the common hen weighed but 1 oz. 8 dwt. 14 grains.—*American Farmer.*

Massachusetts Horticultural Society.

EXHIBITION OF FLOWERS.

Saturday, June 27th, 1840.

Dahlias, by Mr Ellery, of Brookline.

Bouquets, by R. Howe, Jno. A. Kenrick, Wm. Kenrick, Jno. Hovey, Hovey & Co., A. Bowditch, and S. Walker.

Roses, by Messrs Winship, of Brighton, S. R. Johnson, Wm. Kenrick, (15 varieties), R. Howe, and S. Walker.

Pinks, by S. Walker.

Cut flowers in variety from Messrs Winship, Walker, Kenrick and Howe. Jno. A. Kenrick, 5 var. of honeysuckle.

For the Committee.

S. WALKER, *Chairman.*

☞The Essex Agricultural Society hold their annual Cattle Show and Exhibition at Georgetown, on Wednesday the 30th of September next. We have received the Society's List of Premiums, and will publish it in our next.

The communication of Mr Kenrick is too lengthy for our columns this week. It shall be commenced in our next number.

The Philadelphia Ledger says that a Yankee has invented a method of keeping hens from scratching in gardens. The plan is to tie two of the toes of one foot. The hen cannot scratch with the tied foot, and she cannot stand on that foot alone to scratch with the other.—This is the age of invention.

The Hessian fly is doing extensive injury to the wheat crops in several parts of Pennsylvania and Maryland. The southern papers complain also of the ravages of a new species of fly upon the tobacco plant. What a taste they must have.

When plants are removed in sunny weather, it is of great advantage to place a shingle or some such thing, on the south side of the plant to shade it from the mid-day sun.

BRIGHTON MARKET.—Monday, June 27, 1840.

Reported for the New England Farmer

At Market 345 Beef Cattle, 10 pairs Working Oxen, 15 Cows and Calves, 1450 Sheep and 200 Swine.

Prices.—*Beef Cattle*—We reduce our quotations to correspond with sales. First quality, $6 25. Second quality, $5 75 a $6 00. Third quality, $5 00 a $5 50.

Working Oxen.—No sales noticed.

Cows and Calves.—Sales $22, $27, $30, $33, $40, and $45.

Sheep.—Dull. Lots were sold at $1 33, $1 75, $1 88, $2 25, $2 50, and $2 75.

Swine.—Lots were sold to peddle. A few were retailed from 4 1-2 to 7.

125 Beef Cattle remain unsold.

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, weeks ending June 21 and 28.

June, 1840.		7 A.M.	12, M.	5, P.M.	Wind.
Monday,	15	53	70	62	N. W.
Tuesday,	16	50	70	64	N.
Wednesday,	17	53	77	63	N. E.
Thursday,	18	56	78	64	S.
Friday,	19	61	80	56	W.
Saturday,	20	52	67	60	S.
Sunday,	21	56	72	64	N. W.
Monday,	22	60	83	74	W.
Tuesday,	23	59	83	72	S.
Wednesday,	24	60	85	78	W.
Thursday,	25	64	78	73	N.
Friday,	26	59	77	66	S. E.
Saturday,	27	60	73	65	S. E.
Sunday,	28	62	81	72	S. E.

DORKING FOWLS.

For sale, a few pairs of pure Dorking Fowls. The stock, of which these are the produce, were procured in Dorking, County of Surrey, England. "Few breeds have a title to boast of so high and long continued a reputation as the Dorking. Upwards of fiftyfive years have passed, since, while resident in Surrey, I sent to Dorking for my first regular breeding-stock: they were then the ancient and superior five-clawed breed of Surrey."—*Mowbray on Poultry, 7th Edition.*

This breed attains to a large size, and the hens are the best of layers. Price $3 per pair. Apply to

JOSEPH BRECK & CO.

June 24. tf

OSTRICH FOWLS.

For sale, a few pairs of this largest breed of domestic poultry. The hens are good layers and the eggs of the *largest* size. The male, of which these are the produce weighs more than eight pounds in common condition, and he is not quite a year old. This breed, as well as the Dorking, makes good capons. Price $5 per pair. Apply to

JOSEPH BRECK & C

June 24. tf

PURE BLOOD BERKSHIRE PIGS.

The Society of Shakers at Harvard, Mass., have for sale the Pure Blood Berkshire Pigs. Also, a lot of Berkshire crossed with other Breeds, on reasonable terms at their Village.

Persons wishing to *be sure* of the clear Berkshire breed may rely on those they offer for sale, as they are the progeny of some of the latest imported from England.

June 24.

A Half Blooded Cream Pot Bull Calf for Sale.

Calved April, 1840. Dam, a first rate native cow, and got by Col. Jacques' famous Bull, Don Cream Pot. This Calf is a deep red color, and strongly marked of the Cream Pot breed. Apply to JOSEPH BRECK & CO.

Dorchester, June 21. 3w

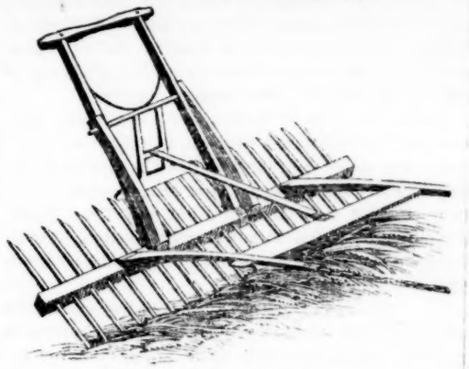
NOTICE.

The Rhode Island Society for the encouragement of Domestic Industry, have procured copies of Dr Jackson's Geological and Agricultural Report of Rhode Island, and will deliver the members each a copy gratis, by calling on B. Cranston & Co. at their Bookstore in Providence.

WILLIAM RHODES, *Treasurer.*

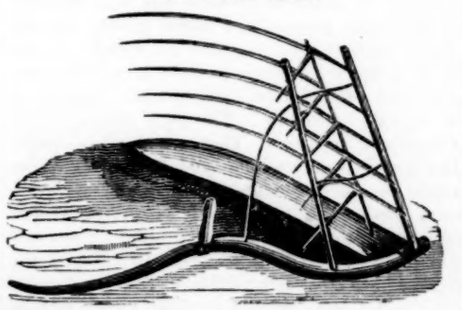
Rhode Island, June 24.

REVOLVING HORSE RAKE.



The Revolving Rake, which has been in general use in most parts of Pennsylvania and New Jersey, is found to be one of the most useful and labor saving machines now in use. One man and horse, with a boy to lead, will rake on an average from 25 to 30 acres per day, with ease, and do the work well. They are coming into very general use in all parts of the country, and will, no doubt, in a few years, supersede the use of the common hand rake. There is a great advantage in this rake over all others, as the person using it does not have to stop the horse to unload the rake.

GRAIN CRADLES.



The Grain Cradle is an article which is coming into very general use in the New England States, where they were till of late but little known, although they have been in very general use in the southern and western States, for many years, and which is found to be decidedly the best mode of harvesting grain, as it is supposed one man will cradle five acres in a day when he cannot reap more than one. The difference in gathering a crop is so much in favor of cradling, that we must suppose that it will be the only mode adopted hereafter, and the grain cradle will become of as much use, as an implement of husbandry, as the plough now is.

There has been a very great improvement in the manufacturing of this article, they are now made on the most improved plan; the scythe is well secured and finished in a superier manner and made of the best cast steel.

SCYTHES, RAKES, &c.

The subscribers offer for sale a very extensive and complete assortment of Scythes, Rakes, &c. consisting in part of

300	dozen	Phillips, Messer and Colby's superior Scythes.	
50	"	Metcalf's	do. do.
50	"	Taft's cast steel	do. do.
25	"	English do. do.	Grass do.
10	"	do. do. do.	Cradle do.
10	"	do. do. do.	Border do.
100	"	Hall's Rakes, superior.	
100	"	Wilder & Eddy's do. do.	
200	"	Common do. do.	
100	"	Clapp's patent Scythe Snaiths.	
50	"	Baker's do. do. do.	
100	"	Common do. do. do.	
2500	"	Austin's superior Rifles.	
2000	"	Common do.	
1000	"	Scythe Stones.	
100	"	Grain Cradles superior.	

They would respectfully call the attention of Dealers and Agriculturists to the above assortment, which consists of many of the best kinds now in use, and which they are prepared to sell at the very lowest prices.

JOSEPH BRECK & CO.

New England Agricultural Warehouse and Seed Store
5 1 52 *North Market Street.*

May 20.

WHOLESALE PRICES CURRENT.

CORRECTED WITH GREAT CARE, WEEKLY.

		From	To
Alum, American,	pound	5	6½
Ashes, Pearl, per 100 lbs.		5 25	5 50
Pot, " " "		4 50	4 75
Beans, white, Foreign,	bushel	1 75	2 25
" " Domestic,	"	2 00	2 50
Beef, mess,	barrel	15 00	
No. 1.	"		
prime,	"	11 00	11 50
Beeswax, white,	pound		
yellow,	"	25	28
Bristles, American,	"	35	70
Butter, shipping,	"	10	11
dairy,	"	15	18
Candles, mould,	"	13	14
dipped,	"		
sperm,	"		37
Cheese, new milk,	pound		
Cider,	dozen	1 25	1 50
refined.	barrel	2 00	4 00
Bone Manure,	bushel		32
in casks,	"		37
Feathers, northern, geese,	pound		
southern, geese,	"	37	45
Flax, (American)	"	9	12
Fish, Cod, Grand Bank,	quintal	1 62	1 75
Bay, Chaleur,	"	1 50	1 75
Haddock,	"	60	1 00
Mackerel, No. 1	barrel	10 00	
No. 2,	"	8 00	8 50
No. 3,	"	3 50	3 62
Alewives, dry salted, No. 1.	"		
Salmon, No. 1,	"	15 00	16 00
Flour, Genesee, cash,	"	4 75	4 87
Baltimore, Howard street,	"	4 87	5 00
Richmond canal,	"	4 87	
Alexandria wharf,	"		
Rye,	"		3 12
Meal, Indian, in bbls.	"		3 12
Grain: Corn, northern yellow,	bushel		
southern flat, yellow,	"	53	54
white,	"	50	51
Rye, northern,	"	59	60
Barley,	"		
Oats, northern, (prime)	"		40
southern,	"	30	32
Grindstones, pr ton of 2000 lbs. rough		18 00	19 00
do. do. do. finished		28 00	30 00
Hams, northern,	pound	9½	10
southern and western,	"		
Hay, best English, per ton,		16 00	18 00
Eastern screwed,		10 50	
Hops, 1st quality,	pound	45	47
2d quality,	"		
Lard, Boston,	"	10	11
southern,	"	9	10
Leather, Philadelphia city tannage,	"	29	30
do. country do.	"	25	27
Baltimore city tannage,	"	26	28
do. dry hides,	"	22	24
New York red, light,	"	20	21
Boston, do. slaughter,	"	21	22
Boston dry hides,	"	18	20
Lime, best sort,	cask	75	80
Molasses, New Orleans,	gallon	23	26
Sugar House,	"	50	55
Oil, Sperm, Spring,	"	1 00	1 05
Winter,	"	1 10	1 12
Whale, refined,	"	40	45
Linseed, American,	"		
Neat's Foot,	"	95	
Plaster Paris, per ton of 2200 lbs.			
Pork, extra clear,	barrel	16 00	17 00
clear,	"		16 00
Mess,	"	14 00	15 00
Prime,	"	12 00	13 00
Seeds: Herd's Grass,	bushel	2 50	3 00
Red Top, southern,	"	70	80
northern,	"		1 50
Canary,	"	2 00	2 25
Hemp,	"	2 25	2 50
Flax,	"	2 00	2 50
Red Clover, northern,	pound	12	13
Southern Clover,	"		15
Soap, American, Brown,	"	5	7
" Castile,	"	12	13
Tallow, tried,	"	8½	9
Teazles, 1st sort,	pr M.		
Wool, prime, or Saxony Fleeces,	pound	45	48
American, full blood, washed,	"	40	45
do. 3-4ths do.	"	40	
do. 1-2 do.	"	35	38
do. 1-4 and common,	"	35	37
Northern pulled. Pulled superfine,	"	42	45
No. 1,	"	35	40
No. 2,	"	23	25
No. 3,	"	18	20

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(*Continued from page* 430.)

The distinguishing features of this division are a deep rich soil, comparatively free from stones, and very dense, luxuriant forests. The soil in the eastern part of this section is of a reddish brown color, which is imparted to it probably by the decomposed *debris* of the red sandstone, which is the principal rock of the Alleghany ridge. The color grows darker until in Indiana it becomes nearly black. The whole region abounds in clay which is more or less incorporated with the soil. The rocks are almost if not quite all, limestone. I do not remember of having seen a stone of any size in the western country, except of limestone, or which did not contain lime, though perhaps there may be micaceous and argillaceous rocks, which do not contain lime. From these facts we should be led to expect a soil well adapted to grain, particularly wheat, and to grass; and such is in fact the case. In Indiana, however, Indian corn generally does better than the smaller grains, which I apprehend is owing not so much to the character of the soil as to the flatness of the surface.

What is here said of the middle region will probably apply to western Virginia, to Kentucky, and perhaps to Tennessee, though as I have no personal knowledge of those States I may be mistaken.

West of the Wabash we find a country of a peculiar character. The northwest part of Indiana, nearly the whole of Michigan, Illinois, the southern half of Wisconsin, Iowa, Missouri, and the territory west to the Rocky mountains, is all a prairie country. Instead of the dense forests of the middle region, we find an immense extent of country without timber of any kind, except here and there insulated groves and narrow belts along the banks of the water courses. *Timber* is the general term applied to woodland in the west: thus in travelling across the prairies they speak of going from one timber to another; but yet they make a distinction between the wood in high and low situations.

The wood growing along the margin of streams and in low lands is similar to the forests in Indiana, consisting of beech, black walnut, sugar maple, sycamore, white and red oak, poplar, bass, hickory, &c., and is called particularly, *timber*; that growing upon high rolling land is chiefly burr oak, mingled in some places with white and black oak, and hickory, and such tracts are called *barrens* or *openings*. The soil of the prairies is a black sandy loam; it has no crust of vegetable mould, but the whole depth of the soil is alike, being a mechanical compound of minute particles, similar to the deposites in the estuaries of large rivers, and although a large portion of the prairies, particularly in the south, have clay underlying the soil, there is very little of the clay incorporated in the soil. The banks of the rivers and creeks are generally clay, and as far as the timber extends the soil contains a good deal of clay: this is the case also in the barrens, and it is a common remark that wherever there is timber the soil contains more or less clay. In the northern parts of Illinois and in Wisconsin, the subsoil is generally gravel, yet the character of the top soil is very nearly the same as in the south, though as might be expected, it is rather drier, both because the gravel absorbs more water, and the surface is more rolling.

The prairies in the southern counties are in general called level, but they are not strictly so: there are slight undulations, but the difference of levels does not amount to many feet. The water drains off from the higher portions into the hollows, where it remains until it is evaporated, and these places are the famous sloughs, of which we hear so much, and in the wet seasons they are very ugly places to pass, as I have reason to know. As we travel northward the surface becomes more undulating or rolling, and the sloughs are more narrow.

On the margins of rivers there are in many places considerable tracts of natural meadow: these tracts are called bottoms: the soil is similar to the high prairie, but lying low and being overflowed at every freshet, it is moist, but not marshy. These bottoms are too low to admit of cultivation, but are valuable for grass: there are other tracts of small extent which are marshy.

We often hear extravagant stories about the grass upon the prairies; it has been represented as growing as tall as a man upon horseback, and the idea is prevalent that the prairies produce enormous burthens of excellent grass, and many writers have taken much pains to establish such an idea—but it is not so. Upon the little patches of low bottoms, particularly about the Illinois river, there is indeed some tall grass resembling a little the common blue-joint of New England meadows, but coarser and much inferior for fodder. The grass of the bottom land generally and of the sloughs, is something like the common grass of our wet meadows, though I think generally of better quality for hay. It rarely grows more than one and a half or two feet high, and the average quantity to an acre cannot exceed a ton of cured hay, and the extreme is not more than two tons. The high prairie is not well adapted to grass. That which does grow, when young is very tender and affords excellent pasture: it comes to maturity early and is then a coarse harsh grass and of little value: its height is from eight to ten inches when fully grown, and an extreme crop will not exceed half a ton to the acre. I have seen many fields of cultivated grass, both timothy and red top, and when highly manured the yield is for two or three years on the best prairie a ton to the acre: without manure the yield does not exceed half a ton. This surprised me exceedingly, for the same soil often yields forty bushels of wheat, and in the east we expect a large crop of hay where we obtain a large crop of grain. I account for a different result in the west in this way: the soil as before stated is sandy, and the long droughts in summer parch up the surface exceedingly, and grasses which do not root deep suffer from the drought; but grain comes forward early, and the thick growth protects the earth longer than the common grasses, and when it does dry the straw has come to maturity. Corn and other plants which root deep are not injured by the summer droughts, and hence I think that red clover would succeed well; but I never saw a field of it upon prairie, nor have I seen any one who has tried it. The bottoms may be converted into valuable meadows by simply burning off the wild grass in the spring and sowing grass seed.

From these facts it is evident that Illinois will not be a good grazing country, but is admirably adapted to the production of grain. The scarcity of springs and rivulets is another obstacle to the raising of stock. The southern part of the State is generally admitted to be rather destitute of water, but the northern part of the State is said to be well watered, but it is so only in comparison with the south. At present while the whole country almost lies common, there is no difficulty in keeping large stocks of cattle, but when the country becomes filled up and the farms fenced, the case will be different. There are very few farms which have a permanent supply of water for stock.

(Concluded in our next.)

Virtue.—There is but one pursuit in life which it is in the power of all to follow and all to attain the object. It is subject to no disappointments, since he that perseveres makes every difficulty a cause of advancement, and every contest a victory. This is the pursuit of virtue.

Alteration and decay are written on every thing human. Nature is built of changes; but her bright scenes are withdrawn only to be replaced by others still brighter. Life is a flower garden, in which new blossoms are ever opening as fast as others fade.

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The subscriber informs his friends and the public, that after ten years experience, he is fully convinced that ground bones form the most powerful stimulant that can be applied to the earth as a manure.

Orders for Bone Manure or Oyster Shell Lime, left at the Bone Mill, near Tremont road, in Roxbury, at the New England Agricultural Warehouse and Seed Store, No. 52 North Market Street, or through the Post Office will meet with prompt attention.

March 4, 1840 NAHUM WARD.

Week's Treatise on Bees

For sale by JOSEPH BRECK & CO.
April 15.

NEW AMERICAN GARDENER.

FOURTEENTH EDITION.

The New American Gardener, containing practical directions on the culture of Fruits and vegetables, including Landscape and Ornamental Gardening, Grape Vines, Silk Strawberries, &c., by Thomas G. Fessenden, late editor of the New England Farmer. For sale by JOSEPH BRECK & CO., 51 and 52 North Market Street.
May 13.

CARNATION SEED.

The Subscribers have received from Rotterdam, a small quantity of extra fine Carnation Seed, saved from one hundred choice varieties, which they offer at 25 cents per paper. We have tried it, and find that it vegetates freely. It cost us 30 guilders per ounce, and from the reprssentation made, no doubt will give satisfaction to those who may be disposed to try it. We have also very fine carnation seed at 12½ cents per paper. The seed may be sown with good success any time in May or June. JOSEPH BRECK & CO.
May 20.

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June 24.

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Containing a complete set of Garden tools of superior finish and style, recently received from Liverpool and for sale at the New England Agricultural Warehouse and Seed Store.
May 6. JOSEPH BRECK & CO.

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JOSEPH BRECK & CO. have this season imported and now offer for sale a few very superior Garden Knives, for pruning, &c. manufactured expressly for Gardeners, and warranted superior to any article of the kind before imported.

Also—a large assortment of Budding Knives, Grape Scissors, &c. &c.
April 22

SUPERB ROCKET LARKSPUR SEED.

The subscribers offer for sale a quantity of Superb Double Rocket Larkspur Seed, of their own raising, saved from double flowering plants only, embracing all the different colors. For fine, strong and early plants, the seed should be sown in August. JOSEPH BRECK & CO.
June 17.

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